

DOE operates a Radiological Assistance Program (RAP) with eight Regional Coordinating Offices staffed with experts available for immediate assistance in offsite radiological monitoring and assessment. DOE RAP teams assist state, local, and tribal officials in identifying the material and monitoring to determine if there is a release and with general support.

Consistent with the DOE manual (DOE 2002b), DOE has developed the Transportation Emergency Preparedness Program to assist federal, state, tribal, and local authorities to prepare for transportation accidents involving radioactive materials. That assistance includes planning for emergencies as well as training for emergencies. For example, through education programs offered to state and tribal organizations, over 17,000 emergency response personnel in twenty states have been trained to respond to accidents involving radioactive material (Westinghouse 2001).

Like private-sector shippers, DOE must provide emergency response information required on shipping papers, including a 24-hour emergency telephone number. Shippers have overall responsibility for providing adequate technical assistance for emergency response.

Carriers are required to provide emergency planning, emergency response assistance, liability coverage, and site cleanup and restoration. DOE's policy is to respond to requests for technical advice with appropriate information and resources.

Specific information regarding local emergency preparedness can be found through Local Emergency Planning Committees (LEPCs) or State Emergency Response Commissions (SERCs).

2.2.5 Pollution Prevention/Waste Minimization

Consistent with the requirements and guidance of several laws and executive orders, including the Pollution Prevention Act of 1990 (42 USC 13101), DOE performs pollution prevention and waste minimization activities in the work it does. Pollution prevention is defined as the use of materials, processes, and practices that reduce or eliminate the generation and release of pollutants, contaminants, hazardous substances, and wastes into land, water, and air. Pollution prevention includes practices that reduce the use of hazardous materials, energy, water, and other resources along with practices that protect natural resources through conservation or more efficient use. Within DOE, pollution prevention includes all aspects of source reduction as defined by the EPA, and incorporates waste minimization by expanding beyond the EPA definition of pollution prevention to include recycling.

Pollution prevention is achieved through:

- equipment or technology selection or modification, process or procedure modification, reformulation or redesign of products, substitution of raw material, waste segregation, and improvements in housekeeping, maintenance, training or inventory control

- increased efficiency in the use of raw materials, energy, water, or other resources
- recycling to reduce the amount of waste and pollutants destined for release, treatment, storage, and disposal.

Pollution prevention is applied to all DOE pollution-generating activities including:

- manufacturing and production operations
- facility operations, maintenance, and transportation
- laboratory research
- research, development, and demonstration,
- weapons dismantlement
- stabilization, deactivation, and decommissioning
- legacy waste and contaminated site cleanup.

2.2.6 Decontamination and Decommissioning of Hanford Facilities

Decontamination is the removal, by chemical or physical methods, of radioactive or hazardous materials from internal and external surfaces of components, systems and structures in a nuclear facility. It is usually the first step toward decommissioning. Decommissioning of a nuclear facility can be defined as the measures taken at the end of the facility's lifetime to assure protection of public health and safety and the environment. Such measures can involve protective storage, entombment, or removal. For protective storage, the facility is left intact after removal of most of the radioactive materials and the appropriate security controls are established to assure public health and safety. Entombment consists of removing radioactive liquids and wastes and then sealing all remaining radioactivity within the facility and then establishing appropriate security controls to assure public health and safety. For the removal option, all radioactive materials are removed from the site and the facility is refitted for other use or completely dismantled.

2.2.7 Long-Term Stewardship

The Hanford Site is being cleaned up to meet certain land-use requirements. These requirements are based, in part, on limitations of what level of cleanup can be practically achieved. Limitations that prevent unrestricted use of all land and groundwater at the Hanford site include:

- technical and economic limitations – technically or economically practicable technology does not exist to perform cleanup activities. For example, no technology, known or anticipated, can remove 100% of the contents of Hanford's high-level waste tanks.
- worker safety and health issues – impacts to workers from cleaning up may be greater than the impacts to the general public for not cleaning up. For example, the impacts to workers from digging up and treating waste from old burial grounds might be greater than the impacts to the general public from capping the waste in place.